

May 14, 2012

Mr. Philip Allen (6SF-AP) Remedial Project Manager U.S. Environmental Protection Agency Region 6 1445 Ross Avenue Dallas, TX 75202-2773

Dear Phil:

Attached please find a summary Progress Report for April 2012. This report was prepared on behalf of the Patrick Bayou Joint Defense Group, the Respondents to the Administrative Settlement Agreement and Order on Consent for the Patrick Bayou Superfund Site in Deer Park, TX. Should you have any questions, please call me at 919-539-1928 or e-mail me at bobp@projectnavigator.com.

Sincerely,

s/R Piniewski

Robert Piniewski Project Coordinator

Attachment

cc: Maureen Hatfield – TCEQ

April Palmie - TCEQ Joe Bell - TCEQ Jessica White – NOAA

Barry Forsythe – US Fish and Wildlife Service

Patrick Bayou Joint Defense Group

Monthly Progress Report for April 2012 Submitted May 14, 2012 Patrick Bayou Superfund Site Deer Park, Texas

The Administrative Settlement Agreement and Order on Consent (AOC) for the Remedial Investigation/Feasibility Study (RI/FS) at the Patrick Bayou Superfund Site (Site) in Deer Park, Texas was entered on January 31, 2006. The Respondents include The Lubrizol Corporation, Occidental Chemical Corporation and Shell Oil Company, on behalf of Deer Park Refining Limited Partnership and Shell Chemical LP. The Respondents have formed the Patrick Bayou Joint Defense Group (JDG) to perform the work.

A. Summary of Work Performed – April 2012

The JDG, Project Navigator, and AnchorQEA (Anchor), completed work on the following tasks:

- Submitted final Sediment Transport Modeling Report and the JDG Response to Agency Comments on the Report
- Met with Phil Allen/EPA to update him on the status of the BERA, the HHRA and to discuss EPA's expectations for the RAM
- Evaluation of the results of field sampling efforts in support of the Baseline Ecological Risk Assessment (BERA) Work Plan.
- Evaluation of the results of the field sampling efforts in support of the Human Health Risk Assessment (HHRA) Work Plan
- Preparation of Remedial Alternatives Memorandum (RAM)

B. Summary of Agency Communication

The written communication between the JDG and EPA subsequent to the filing of the AOC is summarized in the attached Table 1.

C. Summary of Sampling Results

None this reporting period.

D. Problems, Delays and Solutions

None this reporting period.

E. Projected Work for Next 2 Reporting Periods – May and June 2012

The JDG, PNL and AnchorQEA expect to complete the following tasks in April and May 2012:

- Analysis and evaluation of data from BERA field sampling efforts
- Analysis and evaluation of data from the HHRA field sampling efforts
- Preparation of Remedial Alternatives Memorandum (RAM)

F. Schedule

The overall RI/FS project schedule in Gantt chart format was updated in the Final General RI/FS Work Plan. That schedule will serve as the baseline schedule for the RI/FS. The schedule has been updated and is attached.

Prepared by: Robert Piniewski Project Coordinator

JDG Submittal Date	JDG Communication Summary	Response From EPA Date	EPA Communication Summary	Notes					
2/24/06	AOC Required Notifications	None	N/A	ID Project Coordinator and RI/FS Contractor, Certificates of Insurance and Anchor Quality Management Plan					
2/28/06	Payment of Past Costs	6/12/06	Notice of end of public comment period on cost recovery actions						
3/1/06	Financial Assurance	None							
4/28/06	Draft Preliminary Site Characterization Report (PSCR)	6/15/06	Agency comments received on Draft PSCR						
6/7/06	Approach to RI/FS Work	6/7/06	EPA approved Adaptive Management Strategy for RI/FS	RI/FS will utilize Adaptive Management and a phased approach					
6/27/06	Draft Work Package I Work Plan	7/7/06	EPA approved Work Package I Work Plan						
8/2/06	Response to Comments on PSCR	9/22/06	EPA approved PSCR						
8/17/06	Draft General RI Work Plan	9/21/06	Agency comments on Draft General RI Work Plan						
8/17/06	Draft Work Package 2 Work Plan	9/21/06	Agency comments on Draft General RI Work Plan						
9/27/06	Response to Agency Comments on Work Package 2 Work Plan	9/27/06	EPA approval of Work Package 2 Work Plan	JDG response to comments focused on field work related comments only					
10/26/06	Submittal of Laboratory Qualifications and QA Manual(s)	None							
10/31/06	Deviations from WP2 Work Plan	11/02/06	Verbal approval from EPA on Nov. 2, 2006.	Minor deviations that occurred during the recent implementation of Work Package 2					
12/14/06	Deviation from WP1 Work Plan	3/1/07	Verbally approved by EPA at Site Status Meeting						

JDG Submittal Date	JDG Communication Summary	Response From EPA Date	EPA Communication Summary	Notes
1/9/07	Response to Agency Comments on General RI Work Plan and Work Package 2 Work Plan	None Required	Summarized previous agreements with EPA on Work Plans which had already been approved by EPA	
1/9/07	Final General RI Work Plan and Work Package 2 Work Plan	02/28/07	EPA comments received February 28, 2007	
2/16/07	Draft WP 1 technical memorandums	3/20 - 3/23/07	EPA comments received March 20-23, 2007	
4/5/07	Submit Work Package 2 Data Report	None		
4/25/07	Response to second set of regulatory comments on General RI Work Plan and Work Package 2 Work Plan	None Required	Summarized previous agreements with EPA on Work Plans which had already been approved by EPA	
5/11/07	Submit Draft Supplemental RI Work Plan	7/8/07	EPA comments received July, 8, 2007	
6/13/07	Submit Response to Comments on Draft WP 1 technical memorandums	None Required	Additional EPA comments post-response	
6/13/07	Submit Response to Comments on Supplemental RI Work Plan	6/15/07	EPA approval for Supplemental RI Work Plan received July 15, 2007	
4/2/08	Submit draft Selection of Contaminants of Potential Concern for Ecological Risk Assessment	6/3/08	EPA comments received June 3, 2008	
7/11/08	Draft Response to Comments on COPC Report	Various	EPA comments received.	
7/24/08	Technical Memo – Sediment Toxicity and COPC Selection	Various	EPA comments received	
7/29/08	Agreements and Action Items – July 16, 2008 Tech Group Meeting	None Required	Summarized in 3/12/09 Submittal – Summary of Agreements - Patrick Bayou Technical Workgroup	

JDG Submittal Date	JDG Communication Summary						
9/23/08	Agreements and Action Items – September 23, 2008 Tech Group Meeting	None Required	Summarized in 3/12/09 Submittal – Summary of Agreements - Patrick Bayou Technical Workgroup				
10/30/08	Draft Mixing Zone Evaluation Work Plan	various	EPA comments received and addressed on 11/18/09				
10/30/08	COPC Selection Amendment Report	04/27/09	Final comments from EPA received April 27, 2009.				
11/11/08	Agreements and Action Items – November 6, 2008 Tech Group Meeting	None Required	Summarized in 3/12/09 Submittal – Summary of Agreements - Patrick Bayou Technical Workgroup				
11/18/08	Response to Comments on Mixing Zone Evaluation Work Plan	11/18/08	Verbal Approval from EPA to proceed on 11/18/09.				
2/18/09	Agreements and Action Items – February 12, 2009 Tech Group Meeting	None Required	Summarized in 3/12/09 Submittal – Summary of Agreements - Patrick Bayou Technical Workgroup				
3/12/09	Summary of Agreements - Patrick Bayou Technical Workgroup	7/19/09	Approved by EPA.				
3/12/09	Final Response to Comments on the Contaminants of Potential Concern (COPC) Report	7/16/09	Approved by EPA.				
4/14/09	April 8, 2009 Conference Call Notes – Acute/Chronic Ratios – Sediment Toxicity Testing	None Required	Technical discussion only, no further action.				
5/29/09	Adaptive Management Strategy and Patrick Bayou RI/FS Phases	7/16/09	Approved by EPA.				
6/4/09	Draft Sediment Transport Model Report	Pending	Comments received on 8/3/09.				

		I dillich D	ayou Superiuna Site	
JDG Submittal Date	JDG Communication Summary	Response From EPA Date	EPA Communication Summary	Notes
6/15/09	Draft Mixing Zone Layer Study	8/7/09	Comments received and addressed in Response to Comments on 8/8/09. Approved by EPA.	
9/24/09	Draft Sediment and Surface Water Sampling Plan	10/23/09	Comments received by 10/12/09. Response to Comments submitted on 10/21/09. Approved by EPA.	
6/10/10	Sediment and Surface Water COPC Delineation Data Report	N.A.	Data report only.	
9/24/10	Draft Baseline Ecological Risk Assessment Work Plan	12/6/10	EPA Comments received November 29, 2010. TCEQ and Trustee comments received December 6, 2010.	
3/16/11	Response to Agency Comments on Draft BERA Work Plan	4/14/11	Additional comments received by 4/14/11.	
3/23/11	Provide site data as requested by Phil Turner/EPA and Linda Broach TCEQ	N.A.	EPA requested dioxin data from sediment sampling.	
3/28/11	Draft Human Health Risk Assessment Work Plan	5/2/11	Comments received by 5/2/11.	
4/7/2011	Draft Upstream Characterization Work Plan	5/13/11	Comments received from Agency.	
5/27/11	Final Baseline Ecological Risk Assessment Work Plan and Responses to Agency Comments	6/1/11	EPA approval of BERA Work Plan via email	
6/3/11	Response to Agency Comments on Draft HHRA Work Plan	8/1/11	TCEQ comments received 7/15/11. EPA approval of HHRA Work Plan via email	
6/14/11	Final Upstream Characterization Work Plan and Response to Comments	8/1/11	TCEQ comments received 7/15/11. EPA approval of Upstream Characterization Work Plan	

JDG Submittal Date	JDG Communication Summary	Response From EPA Date	EPA Communication Summary	Notes
8/20/11	Request for approval to modify compositing scheme in the Baseline Ecological Risk Assessment Sampling and Analysis Plan.	9/20/11	EPA provides verbal approval	
8/29/11	Notice of Payment of Future Response Costs and Objection to Enforcement Costs July 1, 2010 through June 30, 2011	N/A		
9/15/11	Notice that on September 28, 2011 the JDG will mobilize to begin sampling efforts in support of the Human Health Risk Assessment Work Plan.	N/A		
2/8/12	Upstream Characterization Data Report submitted to EPA, TCEQ and Trustees	N/A	Data report only.	
4/18/12	Final Sediment Transport Modeling Report and the JDG Response to Agency Comments on the Report	Pending		

ID Task Name	Duration	Start	Finish	Predeces		2006		2007	1 - 1		800		2009		20			2011)12		2013	
1 AOC Executed	0 days	Tue 1/31/06	Tue 1/31/0		Q4 Q1	Q2 Q3	Q4 Q1	Q2 Q3	Q4	Q1 Q2	Q3 Q4	Q1	Q2 Q3	Q4	Q1 Q2	Q3 Q	4 Q1	Q2 Q3	3 Q4	Q1 Q2	Q3 Q	4 Q1 (Q2 Q3	3 Q
	,		Fri 9/22/0		-		<u> </u>		-	-		+	-	\vdash	_	_	+	-	+	-		+	_	+
Preliminary Site Characterization Report	168 days?	Tue 1/31/06		-						-		\perp				-	\perp		\perp	\rightarrow		+	\rightarrow	+
8 General RI Work Plan	248 days?	Fri 3/24/06	Tue 3/6/0									\perp		\perp		\perp	\perp		\perp			\perp		\perp
Data Evaluation	320 days?	Mon 4/3/06	Fri 6/22/07		,																	\perp		\perp
25 Remedial Investigation	1506 days?	Wed 5/3/06	Wed 2/8/1:																	₹				\perp
26 General RI Work Plan	106 days	Wed 5/3/06	Wed 9/27/0	-			Ÿ																	\perp
Phase 1 RI Field Activities and Reporting	280 days	Mon 10/2/06	Fri 10/26/0				-		₩.															\perp
Phase 2 RI Field Activities and Reporting	414 days	Thu 3/1/07	Tue 9/30/0	-							-													\perp
Supplemental RI Field Activities and Reporting		Mon 11/17/08	Thu 6/10/1	-																				\perp
46 Upstream Characterization Field Activities and Reporting	267 days?	Tue 2/1/11	Wed 2/8/1:	2																₩				
Risk Assessment	805 days?	Mon 12/28/09	Fri 1/25/1:	3											$\overline{}$	_				_		-		
54 BERA Work Plan	373 days?	Mon 12/28/09	Wed 6/1/1	1											$\overline{}$	_		-						Т
61 HHRA Work Plan	285 days?	Tue 6/29/10	Mon 8/1/1	1												_								T
66 Risk Assessment Field Efforts	36 days	Fri 8/12/11	Fri 9/30/1	1 65																				T
Risk Assessments	345 days?	Mon 10/3/11	Fri 1/25/1:	3 66								\Box							-	_	H	-		T
Prepare Draft Risk Assessments	195 days?	Mon 10/3/11	Fri 6/29/1:	2								\Box												T
9 Agency Review and Comment Cycles	90 days	Mon 7/2/12	Fri 11/2/1	268								\Box												T
70 Finalize and Submit Risk Assessments	60 days	Mon 11/5/12	Fri 1/25/1:	3 69								\Box												T
1 Approval of Risk Assessments	0 days	Fri 1/25/13	Fri 1/25/1:	3 70								\Box										1		T
7 Feasibility Study	562 days	Fri 11/4/11	Mon 12/30/13	3								\top								_		++	_	÷
8 Sediment Transport Model and Report	151 days	Fri 11/4/11	Fri 6/1/1:	2								\top				\neg	\top					111		+
79 Finalize and EPA Approval	151 days	Fri 11/4/11	Fri 6/1/1:	2																		111		\top
RAM Technology Screening Memo	165 days	Thu 3/1/12	Wed 10/17/1:	2															\vdash	-		111		\top
Prepare draft RAM Tech Screening Memo	90 days	Thu 3/1/12	Wed 7/4/1:	2																	h	111		\top
32 Agency Review and Comment Cycles	45 days	Thu 7/5/12	Wed 9/5/12	2 81								\top				\neg	\top					111		+
33 Finalize and Submit RAM TS Memo	30 days	Thu 9/6/12	Wed 10/17/12	2 82								\top					\top				-	111		+
Approval of RAM TS Memo	0 days	Wed 10/17/12	Wed 10/17/12	2 83								\top		\Box			\top			\neg	•			+
Remedial Alternatives Memo	165 days	Tue 9/25/12	Mon 5/13/13	3								\top		\Box			\top			\neg		+++		+
Prepare draft Remedial Alternatives Memo	90 days	Tue 9/25/12	Mon 1/28/13	3								\top					\top			\neg			_	+
Agency Review and Comment Cycles	45 days	Tue 1/29/13	Mon 4/1/1:	3 86,71					1 1			\top								\neg				+
Finalize and Submit RAM	30 days	Tue 4/2/13	Mon 5/13/1:	3 87	\top				\Box	\neg		+				\neg	+		\dagger	\vdash			<u></u>	+
39 Approval of RAM	0 days	Mon 5/13/13	Mon 5/13/1:	3 88	\top					\neg		+		\Box		\neg	+	\neg	+					+
70 Feasibility Study Report	165 days	Tue 5/14/13	Mon 12/30/13	3					1 1			+	\neg						\dagger	\neg				÷
Prepare FS Report	90 days	Tue 5/14/13	Mon 9/16/13	3 89	\top					\neg		+				\neg	+					+		a t
Agency Review and Comment Cycles	45 days	Tue 9/17/13	Mon 11/18/1	391					1 1			\top								\neg				
3 Finalize and Submit FS Report	30 days	Tue 11/19/13	Mon 12/30/13	3 92						\neg						\neg				-				T
4 Approval of FS	,	Mon 12/30/13	Mon 12/30/13	3 93	\top					\neg		+		\Box		\neg	+		+			+	\top	+
2 Remedial Investigation Report	294 days	Mon 1/2/12	Thu 2/14/1:		\top					-		+		\Box		\neg	+			\rightarrow		+	\top	+
73 Prepare Draft RI Report	175 days	Mon 1/2/12	Fri 8/31/1:	2								+		+			+		+			+*+		+
74 Agency Review and Comment Cycles	90 days	Mon 9/3/12	Fri 1/4/1:		+					+		+	-	\vdash	-	+	+	-	+				+	+
75 Finalize and Submit RI Report	29 days	Mon 1/7/13	Thu 2/14/1:		+					+		+	-	\vdash	-	+	+	-	+	-			+	+
76 Approval of RI Report	0 days	Thu 2/14/13	Thu 2/14/1:		-		-	\vdash	1	_	+ + -	+	_	+	_	-	-	_	+	-	\vdash		-	+

Task Project Summary Inactive Milestone \diamondsuit Manual Summary Rollup = Progress Project: Patrick Bayou Date: Mon 5/14/12 $\hat{\mathbf{u}}$ Split External Tasks Inactive Summary Manual Summary Split Milestone External MileTask Start-only Manual Task Summary Finish-only 3 Inactive Task Duration-only